

STATE OF MICHIGAN **STRATEGIC HIGHWAY SAFETY PLAN**





2009-2012
STATE OF MICHIGAN **STRATEGIC HIGHWAY SAFETY PLAN**



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Chief David Stamm

Term expires on May 27, 2011





JENNIFER M. GRANHOLM
GOVERNOR

STATE OF MICHIGAN
OFFICE OF THE GOVERNOR
LANSING

JOHN D. CHERRY, JR.
LT. GOVERNOR

Dear Traffic Safety Partners:

As governor of the state of Michigan, I am pleased to present the 2009-2012 Michigan Strategic Highway Safety Plan.

In early 2008, the Governor's Traffic Safety Advisory Commission initiated this update of Michigan's long-range, comprehensive traffic safety plan to guide our future traffic safety efforts. As a leader among the states in traffic safety, this plan is designed to continue to reduce traffic deaths and prevent injuries on Michigan's roadways by putting safer drivers on safer roads.

Since the development of our original Strategic Highway Safety Plan five years ago, Michigan's traffic safety partners have worked together in the areas of education, enforcement, engineering, and emergency medical services, to achieve the following impressive results:

- 10.8 percent increase in safety belt use;
- 18 percent reduction in traffic fatalities;
- 24 percent reduction in traffic injuries;
- 23 percent reduction in alcohol-involved fatal and serious injury crashes;
- 24 percent reduction in intersection crashes; and
- 48 percent reduction in fatalities and serious injuries to children ages 0 to 8 years.

The reduction in traffic fatalities alone over the last five years has resulted in an economic savings of more than \$2.7 billion to Michigan families, businesses, and government.

In 2007, the National Cooperative Highway Research Program cited Michigan as a case study in successfully creating a traffic safety culture. We have a long history of cooperation across all branches of state government, at all levels of local government, and in working with the private sector. This focus on high-quality partnerships lets us develop and implement plans that reduce injuries and save lives.

Thanks to the collaborative effort of dozens of agencies, this plan will help ensure that our friends and families arrive home safely, every trip, every time.

Sincerely yours,

Jennifer M. Granholm
Governor

MISSION:

Improve traffic safety in Michigan by fostering communication, coordination, and collaboration among public and private entities.

VISION:

All roadway users arrive safely at their destinations.

GOALS:

- *Reduce traffic fatalities from 1,084 in 2007 to 850 in 2012.*
- *Reduce serious traffic injuries from 7,485 in 2007 to 5,900 in 2012.*

State of Michigan Strategic Highway Safety Plan

BACKGROUND

Michigan's first Strategic Highway Safety Plan (SHSP) was created in late 2004 under the direction of the Governor's Traffic Safety Advisory Commission (GTSAC). The GTSAC was formed by an Executive Order of the Governor in 2002 to serve as the state's major forum for identifying key traffic safety challenges and developing and implementing action plans to address those issues. Creation of the GTSAC merged the Michigan State Safety Commission created in 1940 and the Michigan Transportation Safety Management System created in 1995. Membership on the GTSAC consists of the Governor (or a designee), the Directors (or their designees) of the Departments of Community Health, Education, State, State Police, and Transportation, and the Office of Services to the Aging, the Executive Director of the Office of Highway Safety Planning, and three local representatives from the county, city, and township level.

When the SHSP was originally developed, traffic safety advocates from the federal, state, and local level came together to discuss the current state of traffic safety in Michigan. Included in the process was a review of the traffic crash data resulting in the establishment of a statewide goal and the identification of a number of traffic safety emphasis areas that needed to be addressed to meet the goal.

Since 2004, significant accomplishments have been made in Michigan in the area of highway traffic safety. The SHSP goal of 1.0 fatality per 100 million vehicle miles traveled by 2008 is close to being achieved. As of the end of 2007, the current rate is 1.04. Fatalities are down 15.51 percent and serious injuries are down nearly 24 percent. Michigan's safety belt use rate is 96.2 percent, which is among the highest in the nation and is the highest ever experienced in Michigan to date.

Despite the success over the last five years, deaths and serious injuries caused by traffic crashes continue to be a major public health concern not only in Michigan but across the nation. In Michigan during 2007, there were 1,084 people killed in 987 fatal crashes for an average of 1.1 deaths per fatal crash. Of the 10,071,822 persons living in Michigan in 2007, one out of every 9,291 was killed in a traffic crash, and one out of every 125 persons was injured. For each person killed, 74 persons were injured. Furthermore, traffic crashes continue to be the leading cause of death for children and young adults. The economic loss due to traffic crashes in Michigan is estimated at over \$10 billion. The impact within the local community relative to medical costs, lost wages, insurance costs, taxes, police, fire and emergency services, legal and court costs, as well as property damage are also significant.

Each year brings new challenges for traffic safety. In addition to the familiar issues such as safety belt use, drunk driving, speeding, and lane departure, new issues continue to emerge such as the aging of the driving population, an increasing number of inexperienced motorcyclists on powerful machines, and the increased attention on distracted driving including cell phone use and texting while driving. Traffic safety advocates continue to seek improvements, to address those areas that have a demonstrated need, and to monitor those emerging issues to prevent them from becoming tomorrow's traffic safety problems. With limited resources at all levels, a successful highway safety program depends on building and maintaining flexible and effective partnerships and integrating the work of all disciplines and agencies involved in highway safety. This is accomplished through a comprehensive highway safety planning process. Those disciplines involved in highway safety include the planning, design, construction, operation, and maintenance of the roadway infrastructure (engineering); injury prevention and control (emergency medical services), health education; and those disciplines involved in modifying road user behavior (education and enforcement). These disciplines are often referred to as the "4 E's" of traffic safety.

To manage this complex system, and to achieve the level of integration necessary to meet the highest levels of safety, two key components are required. The first is an organization structure that allows for the integration of agencies involved in highway safety. In Michigan, this structure is in place through the GTSAC. The second is a formal management process to assist with the coordination and facilitation of the activities within these agencies in a manner that will efficiently achieve the mission, vision, and goals. Planning, implementing, and evaluating the SHSP process takes place within the GTSAC structure.





Update Process

In early 2008, the GTSAC commissioned an update of Michigan's Strategic Highway Safety Plan. With the release of 2007 crash data, the Commission determined it was time to review the original plan and determine where updates needed to be made, as many of the goals and strategies identified in the original plan were achieved and/or completed.

On April 18, 2008, a regularly scheduled GTSAC Commission meeting was expanded into a day long SHSP update meeting. In addition to the GTSAC Commissioners, the chairs of all 12 action teams and several state and federal partners were in attendance.

During the update meeting, attendees heard presentations on federal priorities from representatives of the Federal Highway Administration, Federal Motor Carrier Safety Administration, and the National Highway Traffic Safety Administration. A presentation on the current state of traffic safety in Michigan and an update on the status of traffic crash data for each of the twelve emphasis areas was also given.

REVIEW OF TRAFFIC CRASH DATA ANALYSIS

Reviewing traffic crash data is the foundation of problem identification. As more data becomes available electronically, and more Michigan safety agencies develop their organizational capacity for data analysis, the review of crash data has become a continual process rather than an annual event.

Through a partnership with the University of Michigan Transportation Research Institute (UMTRI), a compilation of Michigan's traffic crash data is completed annually and published as the Michigan Traffic Crash Facts. This data is available in web based formats. Traffic crash data from 1992 to the present is available on the UMTRI website at <http://www.michigantrafficcrashfacts.org/>. Additional enhancements in the form of a data query tool and mapping capabilities have also been added to this website. A summary of the information used in the analysis of Michigan's crash data for updating the SHSP is provided in Table 1.

The plan update also included a review of the data for each emphasis area selected in the original plan. Attendees were asked to determine if the current emphasis areas continue to be critical traffic safety issues that need to be addressed in order to meet the revised goals. The group recommended that all emphasis areas remain with the exception of work zone safety. The emphasis area crash data presented at the meeting is provided in Table 2.

In addition to updating the plan, the group was also asked to consider the current GTSAC Action Team structure to determine if it continues to be an effective mechanism for implementation of the SHSP. Each Action Team chair was

asked to provide input during the meeting on any operational issues their particular Action Team was experiencing.

PLAN CHANGES

Discussion during the update meeting resulted in a recommended change to the GTSAC mission statement and a proposed set of new goals for the next five years. In addition, following a discussion on the current emphasis areas, the group felt that work zone safety as a SHSP emphasis area should be eliminated since there are other avenues already in existence through the Michigan Department of Transportation to address this issue. Considerable discussion also took place on how to incorporate the area of Emergency Medical Services (EMS) into the plan. The decision was made to recommend that an exploratory group be created to identify the best way to incorporate EMS as an emphasis area into the SHSP.

The GTSAC Commissioners unanimously approved all recommendations from the SHSP update meeting at its June 26, 2008 Commission meeting.

PLAN IMPLEMENTATION

Based on approved changes to the emphasis areas, the Work Zone Action Team will be dissolved. No other changes to the action teams were deemed necessary based on discussions at both the update meeting and the GTSAC meeting that followed. Each emphasis area action team has updated their overview for inclusion within the emphasis area section of this report.

Each action plan will be updated with background information, issues, and both near-term and long-term strategies. Prioritization focuses on identifying the most efficient yet cost-effective strategies while preserving safety as the number one priority. These strategies are developed through the compilation and analysis of highway crash data, background information, and a review of available planning tools. The strategies discussed in the appropriate National Cooperative Highway Research Program (NCHRP) Report 500 Series Implementation Guides continue to be used in the development of each action plan. These guides can be viewed at (<http://safety.transportation.org>).

The SHSP serves as the overall strategic planning document for the state of Michigan. Implementation of each action plan will take place as agencies with responsibilities for a specific emphasis area incorporate the identified near-term strategies within their respective agency strategic plans.

PERFORMANCE MEASURES

It is critically important to provide a safe and efficient roadway system. The primary "measuring sticks" for safety are

CRASH DATA COMPARISON - 2003-2007 (TABLE 1)

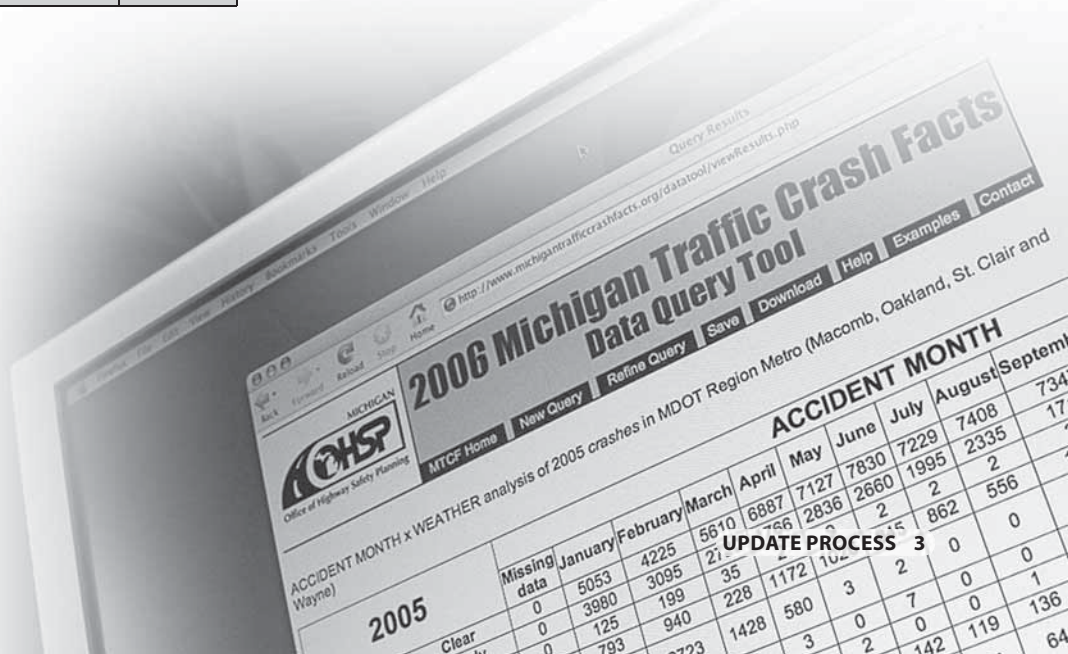
2003-2007 Comparison	2003	2004	2005	2006	2007	% Change 03-07
Total Crashes	391,486	373,028	350,838	315,322	324,174	-17.19%
Fatal Crashes	1,172	1,055	1,030	1,002	987	-15.78%
People Injured	105,555	99,680	90,510	81,942	80,576	-23.66%
People Killed	1,283	1,159	1,129	1,084	1,084	-15.51%
Death Rate (100M VMT)	1.28	1.14	1.09	1.04	1.04	-19.10%
Fatal Crash Rate (100M VMT)	1.17	1.04	1.00	0.96	0.94	-19.37%
VMT (Billions)	100.2	101.8	103.2	104.0	104.6	+4.44%
Registered Vehicles (Millions)	8.71	8.58	8.46	8.35	8.38	-3.78%
Registered Drivers (Millions)	7.19	7.23	7.22	7.24	7.14	-0.71%
Population (Millions)	10.08	10.11	10.12	10.10	10.07	-0.08%

EMPHASIS AREAS (TABLE 2)

Emphasis	2007 Michigan Data	
	Fatal Crashes	% of Total
Alcohol/Drug Impaired Driving	367	37%
Commercial Vehicle Safety	120	12%
Drivers Age 24 and Younger	329	33%
Driver Behavior and Awareness	n/a	n/a
Intersection Safety	265	27%
Lane Departure	472	48%
Motorcycle Safety	121	12%
Occupant Protection	252 fatalities	23%
Pedestrian and Bicycle Safety	150 fatalities	14%
Senior Mobility and Safety	179	18%
Traffic Records and Information Systems	n/a	n/a

reductions in the rate of fatalities and injuries that occur because of motor vehicle crashes across the state each year.

Technical assistance will be provided to the action teams in the form of periodic data analysis. This analysis will provide assistance with monitoring of the progress of each individual emphasis area goal as well as the statewide SHSP goals. In addition, the statewide SHSP will continue to be reviewed and updated every other year by holding a traffic safety strategic planning meeting. Michigan's traffic safety partners from across the state and nationally will be brought together to review the current traffic crash data and the progress of SHSP and the individual emphasis area action plan implementation. The SHSP will also be updated and revised based upon the results of the data analysis and implementation update. This will ensure that Michigan's plan will be kept current and focused on the achievement of Michigan's goal.





SAFETY PARTNERS

Since the development of the SHSP in 2004, many traffic safety advocates across Michigan have continued to be involved in the implementation of the plan. They include representatives from:

AAA Michigan	Michigan Department of State Police (MSP)
ABATE of Michigan	Michigan Department of Transportation (MDOT)
American Association of Retired Persons (AARP)	Michigan Driver and Traffic Safety Education Association
Area Agency on Aging, 1-B	Michigan Governor's Council on Physical Fitness
Biker Bob's Harley Davidson	Michigan Highway Traffic Safety Alliance
Branch-Hillsdale-St. Joseph Community Health Agency	Michigan Public Health Institute
Bronson Methodist Hospital	Michigan Sheriff's Association (MSA)
Calhoun County Sheriff's Office	Michigan Teamsters
Central Michigan University DEER Center	Midland City Police Department
City of Grand Rapids, ITE	Milford Police Department
City of Kentwood	Mother's Against Drunk Driving (MADD)
DLZ Michigan, Inc.	Motor City Harley Davidson
Federal Highway Administration (FHWA)	Mott's Children's Hospital
Federal Motor Carrier Safety Administration (FMCSA)	MSF RiderCoach
Ford Motor Company	National Highway Traffic Safety Administration (NHTSA)
Foster, Swift, Collins and Smith	Oakland County Health Division
Grand Blanc Township Police Department	Oakland County Parks
Group Associates, Inc.	Oakland County Traffic Improvement Assoc.
Hamilton and Associates	Oakwood Health Care System
Honda Goldwing Roadrider's Association	Office of Highway Safety Planning (OHSP)
Hubbell, Roth, & Clark	Office of Services to the Aging (OSA)
Hurley Medical Center	Opus International
Kent County Road Commission	Prosecuting Attorneys Association of Michigan
Kentwood Police Department	Publicom, Inc.
Kettering University	Road Commission of Macomb County
Lansing Community College	Road Commission for Oakland County
Marquette County Health Department	Safe Kids
Marquette County Sheriff's Office	Schoolcraft College Consortium
Michigan Association of Chiefs of Police (MACP)	Sparrow Hospital Hospital Services
Michigan Center for Advancing Safe Transportation throughout the Lifespan (M-CASTL)	Southeast Michigan Council of Governments (SEMCOG)
Michigan Center for Truck Safety (MCTS)	St. Clair County Transportation Study
Michigan Department of Community Health (MDCH)	State Court Administrator's Office
Michigan Department of Education (MDE)	State Farm Insurance
Michigan Department of Information Technology (MDIT)	The Greenway Collaborative, ASLA
Michigan Department of State (MDOS)	Traffic Improvement Association of Oakland County
	University of Michigan Research Injury Center
	University of Michigan Transportation Research Institute
	Washtenaw County Road Commission
	Wayne State University
	Wilcox Professional Services







MICHIGAN EMPHASIS AREAS

To achieve the goal of Michigan's Strategic Highway Safety Plan, data driven emphasis areas and strategies to reduce the number of fatal and serious injury crashes have been identified. The section that follows provides an overview of the problem identified within each traffic safety emphasis area selected during development of the plan. In addition, a list of the most effective strategies for addressing each emphasis area is also provided. The detailed action plans developed for each of these emphasis areas can be found in the GTSAC section of the OHSP website, www.michigan.gov/ohsp-gtsac.

ALCOHOL/DRUG IMPAIRED DRIVING

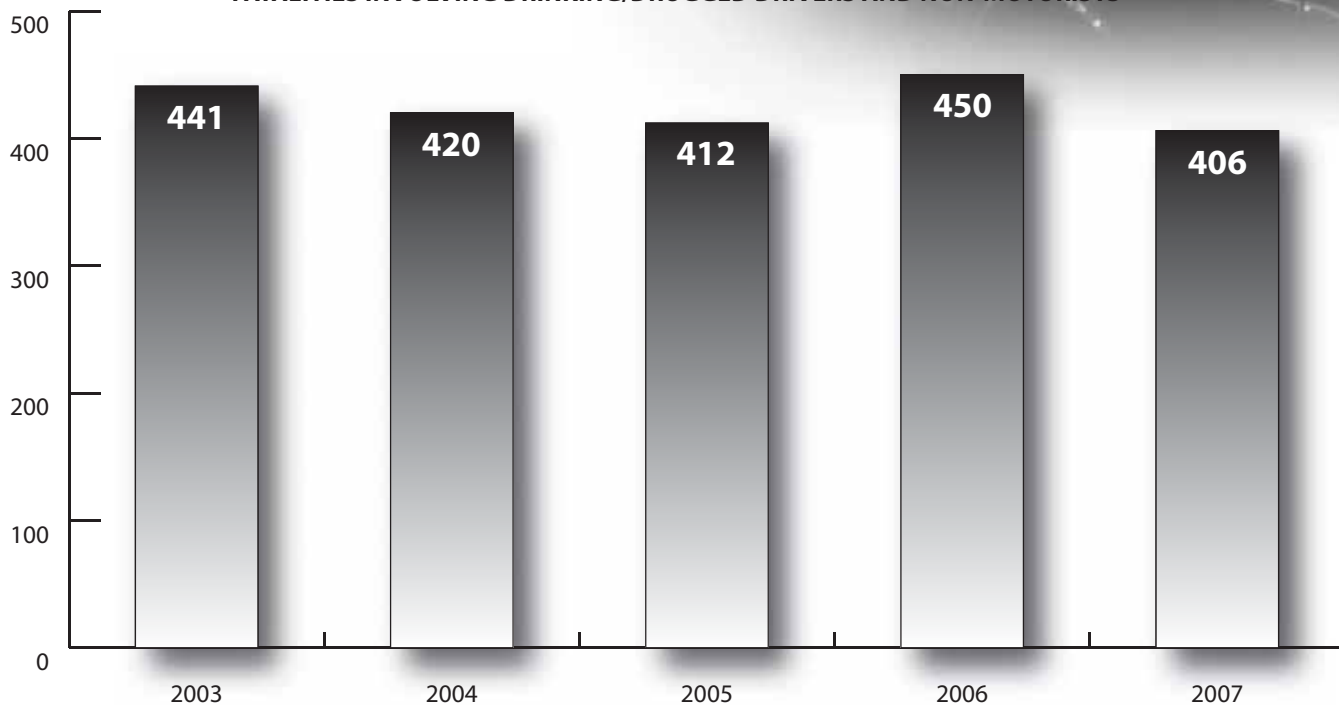
BACKGROUND

In 2007, Michigan had 313 fatal crashes and 406 fatalities related to alcohol- and drug-impaired driving. Michigan recognizes underage male drivers, young male drivers, and weekend crashes as prominent in alcohol/drug related crashes.

STRATEGIES:

- ☐ Support impaired driving enforcement, with a special emphasis on high visibility enforcement (HVE).
- ☐ Support strong public information and education campaigns.
- ☐ Provide enhanced training for all sectors of the criminal justice community.
- ☐ Sponsor efforts to increase the use of DUI/Drug courts.
- ☐ Support the increased use of ignition interlocks.
- ☐ Support initiatives to reduce underage drinking and driving.

FATALITIES INVOLVING DRINKING/DRUGGED DRIVERS AND NON-MOTORISTS



COMMERCIAL VEHICLE SAFETY

BACKGROUND

In Michigan in 2007, there were 13,760 Commercial Motor Vehicle-involved (CMV) reported traffic crashes, injuries and fatalities. CMV-involved crashes and injuries make up a fairly small percentage of the overall crashes and injuries, 4.2 percent and 4.1 percent respectively. CMV involved fatalities though, represent 12.5 percent of fatalities. Since 1998 even though the total number of CMV crashes, injuries and fatalities has declined, the percentage they represent of all crashes has remained constant.

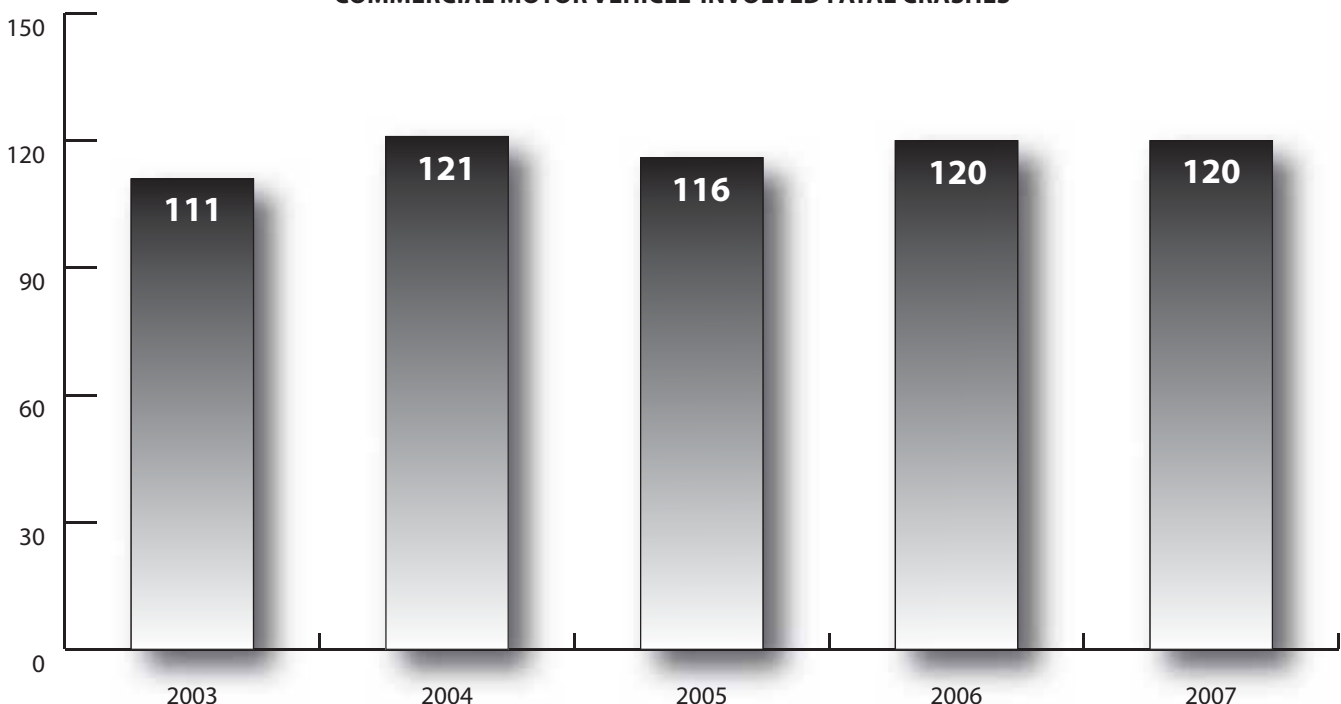
Heavy truck/bus crashes differ from other vehicle crashes in a number of ways reflecting the size and use of these vehicles including:

- ☐ More turning, backing and changing lanes crashes.
- ☐ More fire/explosion, jackknife and cargo loss/shift crashes.
- ☐ Fewer single-vehicle crashes, but more sideswipes.
- ☐ Fewer drivers indicated to be speeding and failing to yield, but more drivers indicated to be making backing, lane use, and turning errors.
- ☐ More on the road crashes.
- ☐ More crashes between the hours of 6:00 a.m. and 2:59 p.m., but fewer crashes between 3:00 p.m. and 5:59 a.m.
- ☐ More weekday crashes.

STRATEGIES:

- ☐ Improve CMV driver performance through education and enforcement.
- ☐ Reduce fatigue-related crashes.
- ☐ Strengthen commercial driver's licensing (CDL) programs.
- ☐ Increase knowledge on how CMVs and cars can "share the road."
- ☐ Improve maintenance of heavy trucks.
- ☐ Identify and correct unsafe roadway infrastructure and operational characteristics.
- ☐ Improve and enhance truck safety data.
- ☐ Deploy truck safety initiatives, technologies, and best safety practices.

COMMERCIAL MOTOR VEHICLE-INVOLVED FATAL CRASHES



DRIVERS AGE 24 AND YOUNGER

BACKGROUND

In 2007, drivers ages 16-24 constituted 14.3 percent of all drivers but were 22.8 percent of drivers in fatal crashes and 22.7 percent of drivers in all crashes. Both represent involvements that are significantly higher than expected, considering the number of drivers in this age group and the mileage driven.

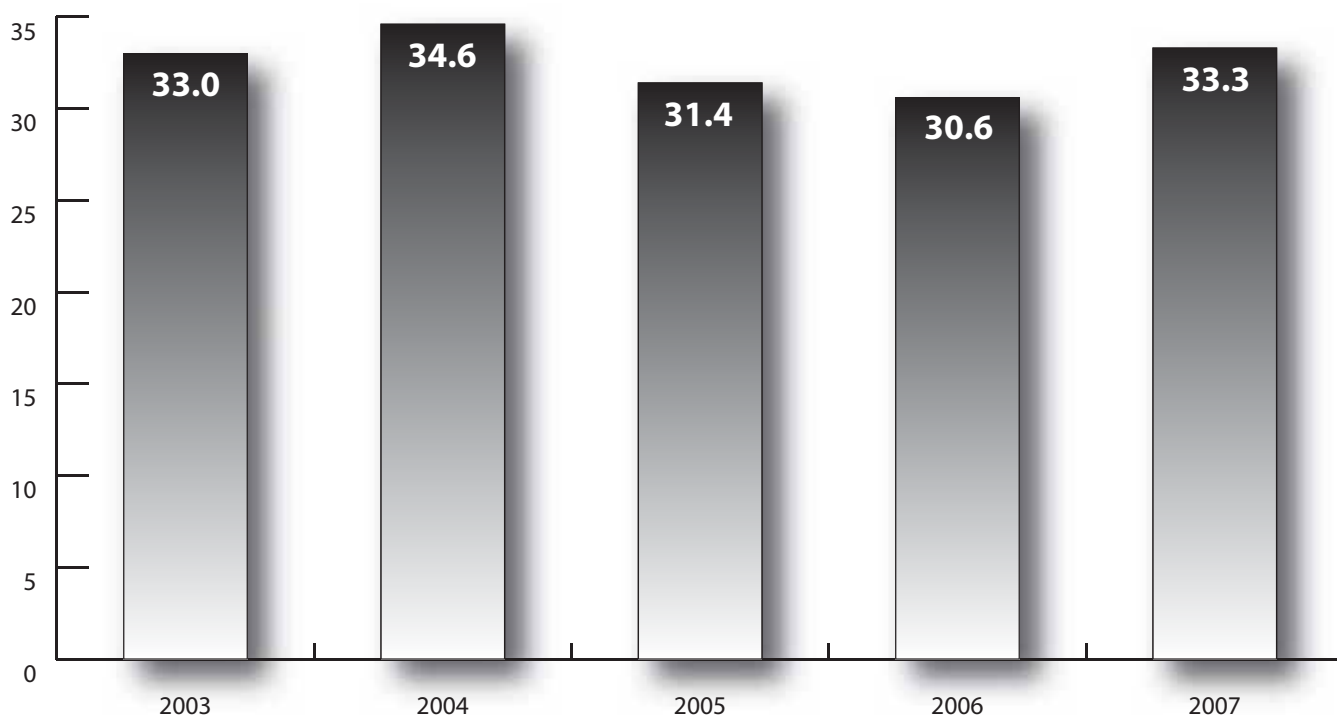
In analyzing 2007 crash data for drivers 16-24, winter weather was a huge cause of the increase, as was motorcycles. Where hazardous actions were assigned to crash-involved drivers in this age group, the leading causes were: "unable to stop in assured clear distance ahead" followed by "failure to yield" and then by "speed to fast." All of these involve either a mismanagement of speed or a lack of or miscommunication between drivers or other highway users.

STRATEGIES:

- ☐ Implement or improve graduated driver licensing systems.
- ☐ Publicize, enforce, and adjudicate laws pertaining to young drivers.
- ☐ Assist parents in managing their teens' driving.
- ☐ Improve young driver training.
- ☐ Employ school-based strategies.



PERCENTAGE OF FATAL CRASHES INVOLVING DRIVERS AGES 16-24



DRIVER BEHAVIOR AND AWARENESS

BACKGROUND

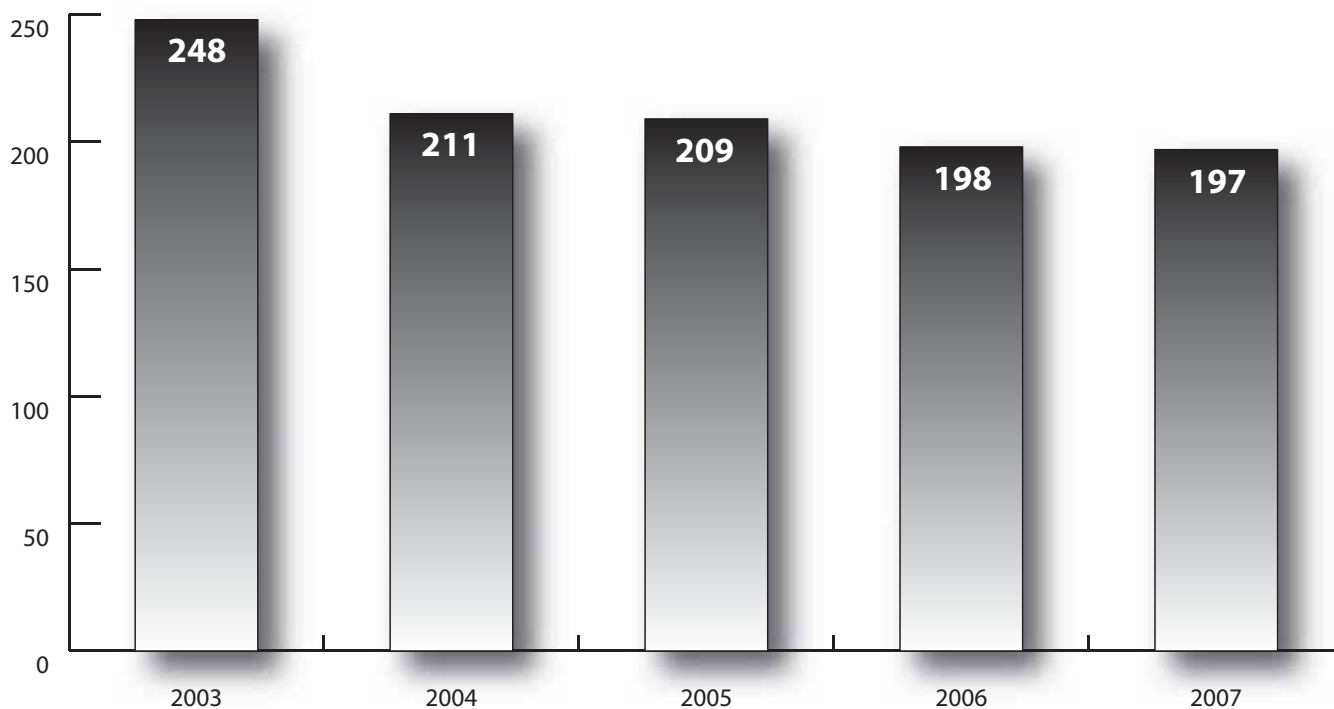
Nationally, more than 60 percent of drivers see unsafe driving by others as a major personal threat to themselves and their families. The problem of unsafe driving is becoming more prevalent and is increasing in severity.

Addressing inappropriate or hazardous driver behavior is a critical factor in reducing fatal and serious injury crashes. Unsafe driving behavior may include but is not limited to: aggressive driving, excessive speeding, railroad grade crossing violations, distracted driving such as cell phone use, drowsy and fatigued driving, unlicensed driving (suspended, revoked, or never licensed), and riding a motorcycle without a federal motor vehicle safety standard (FMVSS) 218 compliant helmet. Therefore, enforcement, engineering, and education will be emphasized in the corresponding strategies.

STRATEGIES:

- ☐ Define and/or determine the scope of aggressive driving.
- ☐ Develop and implement programs aimed at unsafe driving behavior.
- ☐ Provide for the development of comprehensive traffic safety public information and education programs that are designed to motivate change in unsafe driving behaviors.
- ☐ Work with national partners, advertisers, and media to deliver consistent safety messages to counter negative messages promoted by advertising industry.

FATAL CRASHES INVOLVING EXCESSIVE SPEED



EMERGENCY MEDICAL SERVICES

BACKGROUND

Improving highway safety on Michigan's roads takes a coordinated effort among the states highway safety community. All share a common mission to prevent injuries and save lives. Despite all of the programs developed to enforce Michigan's traffic laws, educate drivers, encourage drivers to adopt safe driving habits, and ensure that roadways are engineered safely, crashes still occur. Once a crash has occurred it is critical to reach, assess, and begin treating the victims within the first hour if lives are to be saved and injury severity reduced. As a consequence, Michigan needs a well-prepared and highly responsive emergency medical response system.

The Strategic Highway Safety Plan developed in 2004 did not include Emergency Medical Services (EMS) as a separate traffic safety emphasis area. Following the April 18, 2008, SHSP update meeting a recommendation was made, and later approved by the Governors Traffic Safety Advisory Commission, to include EMS as an emphasis area within the plan. This will enhance the coordination and partnership between EMS and Michigan's highway safety advocates.

STRATEGIES

- ☐ Integrate EMS into the Strategic Highway Safety Planning process
- ☐ Improve the ability of first responders to access the crash scene.
- ☐ Improve the ability of first responders to care for trauma victims at the site of the traffic crash preventing further injuries and secondary crashes.
- ☐ Improve data linkages between EMS and traffic safety.



INTERSECTION SAFETY

BACKGROUND

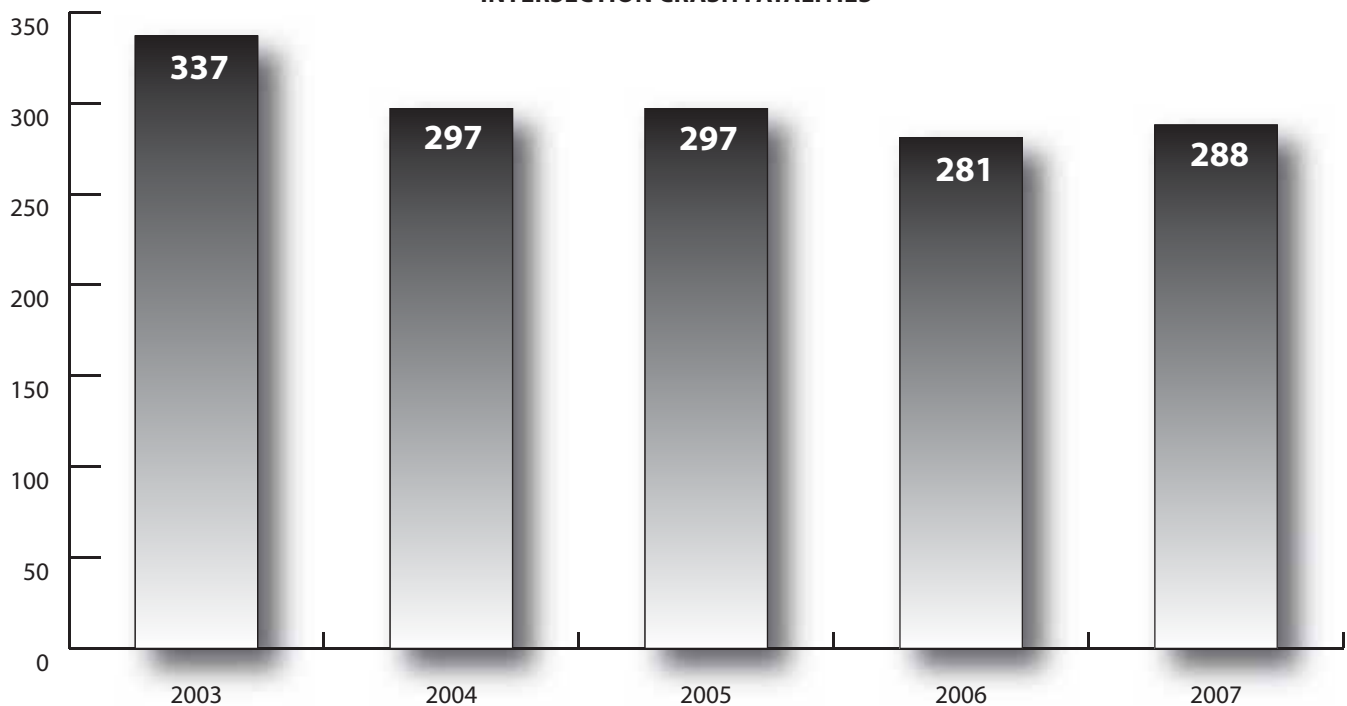
In Michigan, there were 93,119 intersection crashes in 2007 representing 28 percent of all the reported crashes. These intersection crashes resulted in 288 fatalities (29 percent of all Michigan roadway fatalities) and 2,319 incapacitating injuries (31 percent of all Michigan incapacitating injuries).

STRATEGIES:

- Implement strategies in Michigan's Intersection Safety Action Plan in the following areas:
 - ⊞ Legislative / Political Outreach
 - ⊞ Research
 - ⊞ Data
 - ⊞ Safety Analysis Tools and Practices
 - ⊞ Engineering Countermeasures
 - ⊞ Red-Light Running
 - ⊞ Enforcement
 - ⊞ Communication and Education



INTERSECTION CRASH FATALITIES



LANE DEPARTURE

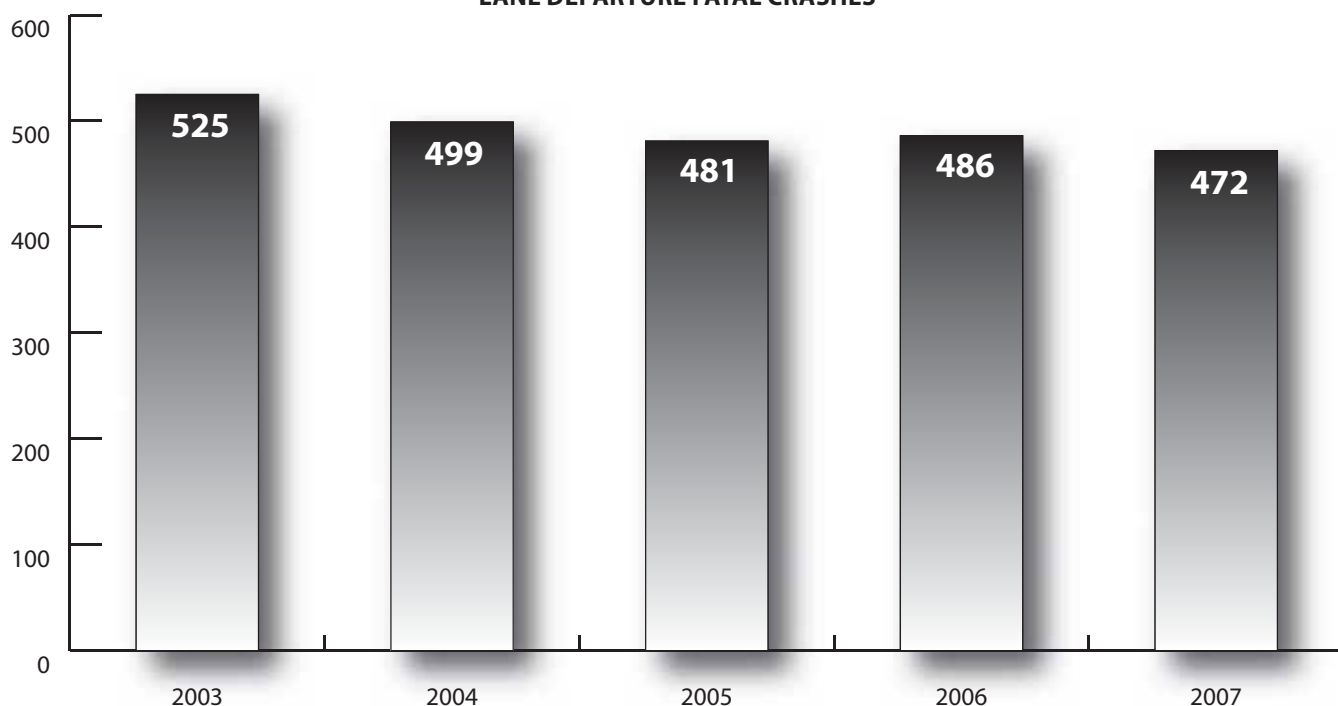
BACKGROUND

In Michigan during 2007, lane departure crashes accounted for approximately 17 percent of all crashes, 40 percent of fatal and incapacitating injury (KA) crashes and over 60 percent of fatal crashes. The primary objective of this emphasis area is to identify cost effective strategies that reduce unintentional lane departure as well as alert the driver should a departure occur. The secondary objective is to assist the driver in returning to the travel lane safely and minimize the consequences of departure by creating clear zones along the roadside.

STRATEGIES:

- ☐ Identify corridors, locations, and/or roadside features with a disproportionately large number of actual and/or potential for run-off-road and head-on crashes.
- ☐ Develop standard operating procedures for the implementation of roadway safety system-wide improvements such as:
 - ⊕ Centerline rumble strips and stripes
 - ⊕ Shoulder rumble strips and stripes
 - ⊕ All weather pavement markings
 - ⊕ Longitudinal and median barriers
 - ⊕ Elimination of road-side hazards
 - ⊕ Consider motorcyclists in the design, construction and maintenance of the roadway infrastructure
- ☐ Conduct selective enforcement specific to identified problems or needs.

LANE DEPARTURE FATAL CRASHES



MOTORCYCLE SAFETY

BACKGROUND

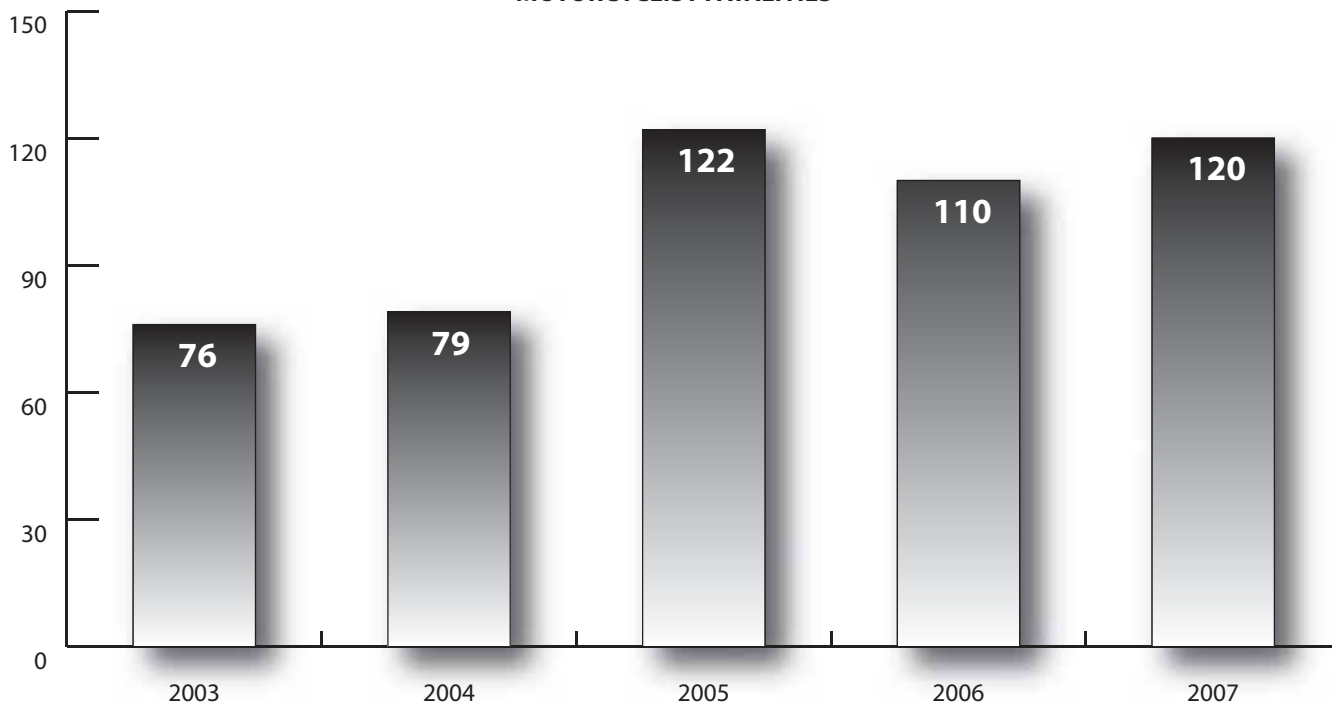
Motorcycle involvement in traffic crashes increased from 3,055 in 2002 to 3,732 in 2007. Additionally, fatalities as a percentage of all motorcycle crashes increased significantly starting in 2005. The general trend represents a collective increase over the last eight years for which data is available. Studies of Michigan's motorcycle-related traffic fatalities indicate that unendorsed and impaired riders are over-represented.

STRATEGIES:

- ☐ Maintain helmet laws and enforce the use of federal motor vehicle safety standard (FMVSS) 218 compliant helmets.
- ☐ Continue to enhance the Michigan Motorcycle Safety Program.
- ☐ Decrease the number of unendorsed and/or impaired motorcyclists.
- ☐ Increase public awareness of motorcycle safety issues.
- ☐ Support legislation to improve motorcycle safety in Michigan.
- ☐ Develop relationships with EMS to improve motorcycle safety in Michigan.
- ☐ Promote the operation and maintenance of Michigan roadways to better accommodate motorcyclists.



MOTORCYCLIST FATALITIES



OCCUPANT PROTECTION

BACKGROUND

Proper use of passenger restraints is the single most cost effective and immediate means of reducing death and injury. Of the 552,451 drivers and injured passengers involved in crashes in 2007, 475,167 or 86 percent were reported to have been using occupant restraints. Restraint usage among fatal victims where usage was known was reported to be 61.8 percent.

Young men are the most likely to be in a crash and the least likely to be wearing a safety belt. Improving safety belt use in this group over-represented in crash data will significantly reduce fatalities.

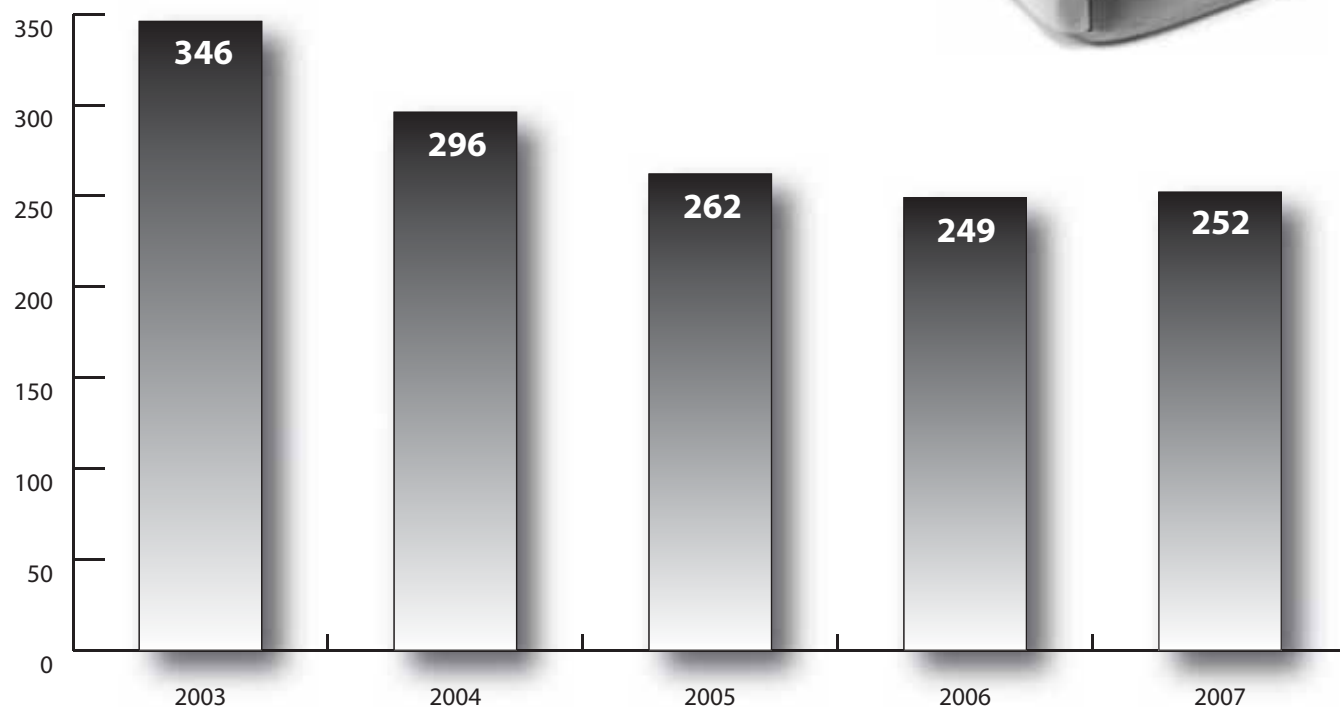
The effectiveness of safety belts and child restraints for reducing injury and preventing death is well documented. Child restraint devices are neither as easy to use nor to enforce as safety belts, but they are essential to protecting children in the event of a crash. While child restraint use is high in the infancy to age four group, usage significantly declines thereafter.

STRATEGIES:

- ☐ Increase perceived threats of receiving a citation for a safety belt violation through high visibility law enforcement efforts.
- ☐ Support public information and education campaigns including earned and paid media.
- ☐ Implement Michigan's current Child Passenger Safety Strategic Plan.



VEHICLE OCCUPANT FATALITIES WITHOUT RESTRAINTS



PEDESTRIAN AND BICYCLE SAFETY

BACKGROUND

In 2007, 134 lives were lost in 2,295 reported pedestrian crashes. Of the pedestrians killed:

- ✓ 42 were impaired (31 percent)
- ✓ 43 were crossing the street at a point other than intersection (26 percent)
- ✓ 22 were under the age of 21 (16 percent)
- ✓ 42 were 55 years of age or older (31 percent)

In 2007, 17 bicyclists were killed in 2,160 reported bicycle crashes. Of the bicyclists killed:

- ✓ 5 were impaired
- ✓ 4 were under the age of 16

STRATEGIES:

- Identify issues and trends in Michigan pedestrian and bicycle crash data.
- Increase enforcement, education and communication in local communities.
- Identify and implement best practices for improving pedestrian and bicycle safety.

The following behaviors were found to be contributing factors in pedestrian and bicycle crashes. The strategies are intended to alleviate these behaviors.

DRIVER BEHAVIOR:	PEDESTRIAN AND BICYCLIST BEHAVIOR:
Disregarded signal	Disregarded signal
Failure to yield right-of-way	Inattention
Inattention	Impairment
Speeding	Mid-block crossing
Impairment	



SENIOR MOBILITY AND SAFETY

BACKGROUND

In 2007, there were 1,075,503 older licensed drivers in Michigan, representing almost 15 percent of all licensed Michigan drivers. The number of older licensed drivers in Michigan has increased 12 percent in the past 10 years while the total number of Michigan drivers has increased nearly 5 percent.

While the data shows that most older drivers are quite responsible (e.g., have higher safety belt usage, lower alcohol-related crash rates), national fatality rates per 100 million vehicle miles traveled (VMT) for the oldest drivers mirror the high rates for teen drivers. Plus, the inherent frailty of older drivers reduces their chances of surviving a crash once it occurs. Crash data in 2007 shows that older drivers are involved in only 12 percent of total Michigan crashes but 20 percent of fatal Michigan crashes. If current fatality rates remain unchanged, the growth in the number of older drivers will lead to a tripling of traffic deaths among those over age 65 by 2030.

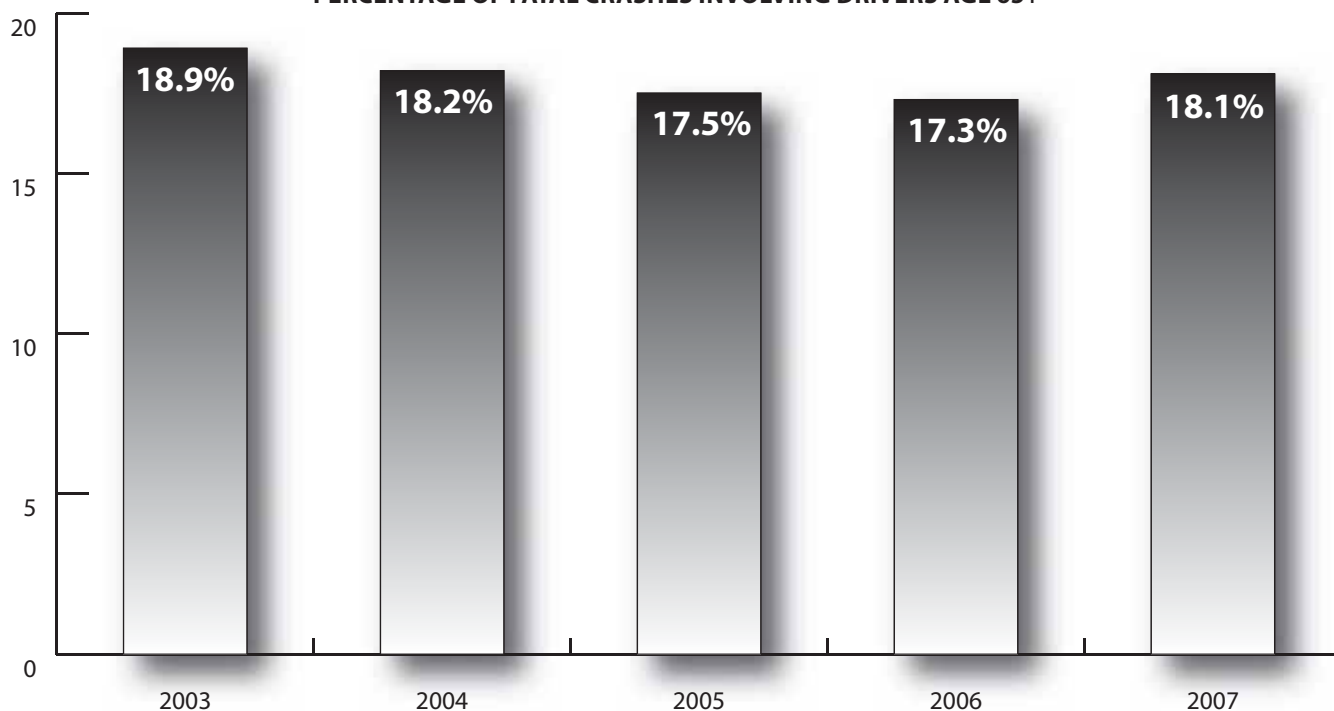
Michigan has had an inter-agency work group dealing with elderly mobility and safety on an ongoing basis since 1997. This group planned and hosted the National Conference on Elderly Mobility in 2004, a best-practices conference which spotlighted successful and innovative practices for improving elderly mobility in the fields of Roadway Design, Screening and Assessment, Education and Training, Housing and Land Use, Alternative Transportation, and Automobile Design.

The work group is continuing to review state and national safety strategies designed to decrease senior driver crashes, improve the driving competency of older adults, identify steps Michigan can take to plan for an aging mobility and transportation dependent population, promote use of transit services by seniors, and improve public awareness of all available transit options.

STRATEGIES:

- ☐ Promote and sponsor research in Michigan on senior mobility issues.
- ☐ Promote planning for an aging mobility and transportation dependent population.
- ☐ Promote the design and operation of Michigan roadways with features that better accommodate the special needs of older drivers and pedestrians.
- ☐ Promote seniors' use of transit services by improving public awareness of all available transit options, and also study best practices in service delivery and customer outreach practices and investigate for possible replication.
- ☐ Assist drivers and their families or caregivers in making decisions that make use of safe transportation options and help sustain the individual's self-determination, dignity, and quality of life.
- ☐ Develop and/or enhance programs to identify older drivers at increased risk of crashing.

PERCENTAGE OF FATAL CRASHES INVOLVING DRIVERS AGE 65+



TRAFFIC RECORDS AND INFORMATION SYSTEMS

BACKGROUND

Understanding and making optimal use of information technology is a critical challenge facing Michigan's highway safety professionals. Knowing the how, when, where, who, and why traffic crashes have occurred is the foundation of a comprehensive traffic safety analysis system. Crash, traffic citation, medical, judiciary, and driver records must be available so proper decisions can be made and effective safety policies and projects can be developed and implemented.

Understanding and using integrated traffic records to plan and assess safety programs, as well as leveraging critical resources, is needed to protect public safety. Systems currently in place must be assessed and improved to meet the needs of our safety professionals.

A complete traffic records program is necessary for planning (problem identification), operational management or control, and evaluation of a state's highway safety activities. The statewide program should include, or provide for, information for the entire state. This type of program is basic to the implementation of all highway safety countermeasures and is the key ingredient to their effective and efficient management.

SAFETY AWARENESS

Safety awareness involves an appreciation of the importance of highway safety and an understanding of the opportunities to improve safety through the strategic commitment of highway dollars toward traffic safety.

Safety conscious planning (SCP) considers projects and strategies to increase the safety and security of the transportation system for motorized and non-motorized travel. SCP's proactive approach brings safety partners together to identify key issues and implement targeted practical strategies to prevent or reduce traffic fatalities and injuries.

STRATEGIES:

- ☐ Improve timeliness and accuracy of data collection, analysis processes, accessibility, distribution, and systems including the linkage of crash, roadway, driver, medical, Crash Outcome Data Evaluation System (CODES), enforcement, conviction, homeland security data, etc.
- ☐ Promote and increase electronic crash reporting which aids in the collection of accurate, timely and accessible data.
- ☐ Expand the local agencies' role, funding, and other resources to improve safety, and application of appropriate geometric, roadside and "Manual on Uniform Traffic Control Devices" (MUTCD) standards.
- ☐ Provide highway safety training and technical assistance to state and local personnel.
- ☐ Increase coordination, communication, and cooperation among various public and private organizations that share responsibilities for highway and transportation safety in Michigan.
- ☐ Institutionalize SCP to include safety criteria at the state and local level.
- ☐ Improve public and legislative awareness of critical highway safety issues.







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